1974), which advocate recognition of a single infraspecific rank (subspecies), were incorporated into the *International Code of Botanical Nomenclature.*

A grant from the Penrose Fund of the American Philosophical Society which enabled me to examine Charles Darwin's Galápagos collections at Cambridge University and the Royal Botanic Gardens, Kew during the summer of 1976 is gratefully acknowledged.—DUNCAN M. PORTER, Department of Biology, Virginia Polytechnic Institute & State University, Blacksburg 24061.

RARE TAXA IN THE LITERATURE.—We were impressed while reading the July, 1977 issue of *Madroño* to note that three authors discussed three rare California taxa. However, we were equally impressed by the omission of any reference to the facts that these taxa are listed in the *Inventory of Rare and Endangered Vascular Plants* of the California Native Plant Society and that two of them are listed as candidates by the Office of Endangered Species, U.S. Fish and Wildlife Service, in the *Federal Register.* We respectfully submit that these omissions are serious oversights because presumably the authors have the best possible data concerning the status of the taxa they are studying relative to rarity and endangerment. Being very rare is a critical attribute of a plant possessing it.

As coordinators of the CNPS Rare Plant Project, we depend greatly upon the botanical community which includes you, the readers and writers of *Madroño* and similar publications. Please send your published and unpublished information about rare plants to either of us for use by the CNPS project.—W. ROBERT POWELL, Director, CNPS Rare Plant Inventory, Dept. of Agronomy and Range Science, Univ. of California, Davis 95616; and ALICE Q. HOWARD, Chair, CNPS Rare Plant Advisory Committee, Botany Herbarium, Univ. of California, Berkeley 94720.

POLLEN SHED AS TETRADS BY PLANTS OF ESCHSCHOLZIA CALIFORNICA (PAPAVERACEAE).—Mature pollen of *Eschscholzia,* and of the rest of the Papaveraceae, is normally shed from anthers as single grains (monads). In greenhouse-grown plants from two populations of *Eschscholzia californica* Cham. (*Clark 492*—California. Alameda Co.: ca. 2 mi SE of Livermore on S Livermore Rd, 24 May 1975; *Clark 503*—Butte Co.: Butte Canyon Rd, 0.9 mi E of junction with Manzanita Ave and Centennial Ave, 25 Jun 1975), I observed that pollen was shed not only as monads, but also as dyads, triads, and intact, generally tetrahedral tetrads. Individual plants of *Clark 492* present all monad pollen, or mixtures of monad, dyad, triad, and tetrad, or nearly all tetrad pollen. Of the two plants of *Clark 503* examined, one produced all monad pollen and the other a mixture of monad, dyad, triad, and tetrad pollen.

Scanning electron micrographs of intact pollen tetrads are presented in Fig. 1. Notice that individual grains are held together by bridges of pollen wall material. Sachar and Mohan Ram (Phytomorphology 8:114–124. 1958) state that "Wall formation [to form microspores] occurs by furrowing." In these populations furrowing evidently does not proceed to completion, leaving bridges of pollen wall and even cytoplasmic connections, which have been seen in light micrographs of pollen stained with cotton blue. Similar exine bridges have been reported in the Onagraceae (Skvarla *et al.*, Amer. J. Bot. 62:6–35. 1975) and in the fossil *Eomimosoidea* (Crepet & Dilcher, Amer. J. Bot. 64:714–725. 1977), but unlike those of *Eschscholzia,* their tetrads are also bound together at the margins of the apertures. Dyads and triads apparently result from furrowing which detaches only one or two grains from the tetrad.

Both populations have high pollen stainability in cotton blue; meiosis observed in *Clark 492* was normal. Tetrad pollen appears to be functional—pollen from an individual of *Clark 492* which sheds almost all tetrads was able to effect full seed set in other *E. californica* plants. The ability to form tetrads is evidently a heritable trait, appearing in F_1 progeny of crosses between *Clark 492* and other populations of *E. californica* and the closely related *E. mexicana* Greene, but appearing in none of